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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/781,524	02/17/2004	Eddy Reynolds	200313753-1	2441

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EXAMINER

HASSAN, AURANGZEB

ART UNIT	PAPER NUMBER
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2182

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/26/2006	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/781,524

Applicant(s)

REYNOLDS, EDDY

Examiner

Aurangzeb Hassan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9, 12 and 18-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 12 and 18-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. The Examiner acknowledges the Applicant canceling claims 13 – 16 and 22 in response to the 35 U.S.C. 101 rejections from the first Office Action. However the Applicant has failed to overcome the rejection with regards to claims 18 – 20.

The computer readable medium as defined in the applicant's specification in paragraph 28 is evidence that the applicant intends the computer readable medium to cover signals. Furthermore in the claims 18 – 20 the term "system" is not accurately described since it seems that the system is comprised of logic, which would be better termed as a program/software.

3. Claims 18 – 20 are rejected under 35 U.S.C. 101 because the claimed invention lacks practical application. The claims recite a computer readable medium that stores a system comprised of logic and lack the recitation to permit the functionality to be realized. Examiner suggests rephrasing the claims to recite, "computer **storage** medium storing a program having **functional** logic **executed**, wherein the logic is configured to". The emphasis in the suggestion is primarily focused to storage, functional and executed to overcome a 35 U.S.C. 101 rejection.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 2, 7 – 9, 12, 18 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Mackiewicz et al (US Patent Number 4,713,756 hereinafter “Mackiewicz”).

6. As per claim 1, Mackiewicz teaches a method practiced by a computer for signaling to a user a write status of an external storage device connected to the computer, the system comprising: detecting transfer of data from the computer (processor acknowledges LOAD/STORE data signals on port, column 2, lines 64 – 67) to the external storage device (non-volatile memory device 100, figure 1, connected via I/O port to which memory device connected, column 2, lines 62 – 64, attached via external interface 40, figure 1); activating a write-in-progress indicator (Busy signal LED 136, figure 1) that signals that writing has not been completed by the external storage device (BUSY indication, column 5, lines 12 – 17);

the computer receiving from the external storage device an indication (input port receives external signals, column 2, lines 64 – 67) that the external storage device has

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completed writing to a non-volatile memory of the external storage device (the external device sends a signal of LOAD and STORE and when data transfer is complete the LOAD signal is transmitted as a null/off/zero to the input port which is received in and forwarded to the flip-flop used to control the LED/BUSY signal in element 226 of figure 2B, column 3, lines 1 – 45 teach the signal utilization); and responsive to the received indication, the computer deactivating the write-in-progress indicator (BUSY signal turns off in response to a null/off/zero LOAD signal received as seen by Q output, column 6, lines 42 – 46) to convey to the user that it is safe to disconnect the external storage device from the computer (enable and disable of BUSY indicator and LED, column 3, lines 3 – 16 and lines 26 – 32).

The Examiner notes that not only does the BUSY signal convey to a user whether an external storage device is safe to disconnect, Mackiewicz further teaches a tampering indicator which is an enhancement above the current application as seen in column 3, lines 46 – 67 and column 4, lines 1 – 9.

7. As per claim 2, Mackiewicz teaches a method wherein detecting transfer of data comprises detecting transfer of data (processor acknowledges LOAD/STORE data signals on port, column 2, lines 64 – 67) to an external storage device (non-volatile memory device 100, figure 1) directly plugged into an input/output port of the computer (I/O port to which memory device connected, column 2, lines 62 – 64, attached via external interface 40, figure 1).

8. As per claims 7 and 8 Mackiewicz discloses a method wherein activating a write-in-progress indicator comprises activating a light-emitting diode associated with the input/output port (BUSY indication signal represented by the light emitting diode 136 figure 1, column 5, lines 12 – 16)

9. As per claims 9 and 20, Mackiewicz teaches a method and computer-readable medium wherein activating a write-in-progress indicator comprises issuing an advanced configuration power interface command to a switch that controls the indicator (CLK and D signal to switch, element 226, figure 2b).

10. As per claim 12, Mackiewicz teaches a method wherein the computer receives the indication from the external storage device (input port receives external signals, column 2, lines 64 – 67) in response to the computer sending a command requesting confirmation (in response to STORE/LOAD command request initializes busy signal, column 3, lines 9 – 16) when writing is completed or a query requesting an indication as to whether writing is completed (indication of completion is represented in enabling of ports and release of busy signal LED, column 3, lines 9 – 16).

11. As per claim 18, Mackiewicz teaches a computer-readable medium that stores a system, the system comprising: logic configured to activate a write-in-progress indicator (processor acknowledges LOAD/STORE data signals on port, column 2, lines 64 – 67

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and activates BUSY indicator, column 3, lines 3 – 6) when data is transferred to an external storage device (non-volatile memory device 100, figure 1) that is plugged into an input/output port associated with a computer (I/O port to which memory device connected, column 2, lines 62 – 64, attached via external interface 40, figure 1), the indicator (LED 136, figure 1) signaling that writing has not been completed by the external storage device (BUSY indication, column 5, lines 12 – 17); logic configured to request indication from the external storage device as to when it has completed writing data to non-volatile memory of the external storage device (external storage connected via input port is responsive to the processor of the PC's requests, column 3, lines 6 – 10); logic configured to receive from the external storage device an indication (input port receives external signals, column 2, lines 64 – 67) that the external storage device has completed writing to the non-volatile memory of the external storage device (BUSY signal turns off in response to a null/off/zero LOAD signal received as seen by Q output, column 6, lines 42 – 46); and logic configured to deactivate the write-in-progress indicator when the indication has been received (enable and disable of BUSY indicator and LED, column 3, lines 3 – 16 and lines 26 – 32).

The Examiner notes that not only does the BUSY signal convey to a user whether an external storage device is safe to disconnect, Mackiewicz further teaches a tampering indicator which is an enhancement above the current application as seen in column 3, lines 46 – 67 and column 4, lines 1 – 9.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 3 – 6 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mackiewicz in view of Huang (US Publication Number 2002/0171999).

14. As per claims 3 and 5, Mackiewicz teaches a method wherein detecting transfer of data comprises detecting transfer of data to an external storage device directly plugged into an input/output port (I/O port to which memory device connected, column 2, lines 62 – 64, attached via external interface 40, figure 1).

Mackiewicz does not disclose the geographical location of how the memory is attached to the computer.

Huang teaches a method wherein an input/output port of a connector hub is provided in a front panel of the computer (figure 2 is a built in hub accessible on the front panel of a computer, paragraph [0014] with input/output ports elements 221 – 223).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify Mackiewicz with the above teachings of Huang. One

would be motivated to make such modifications in order to maximize portability of memory in a computer environment (paragraph [0006]).

15. As per claims 4 and 6 Mackiewicz teaches activating a write-in-progress indicator light (LED 136, figure 1).

Mackiewicz does not disclose the geographical placement of the light-emitting diode on a hub.

Huang discloses a light-emitting diode adjacent (next to) the input/output port of a connector hub on the computer (LED indicator adjacent to element 222, figure 2).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify Mackiewicz's light-emitting diode to be represented by the positioned light-emitting diode indicator taught in Huang, as it is simply a placement of parts. One of ordinary skill would have been motivated to make such modification in order to have an accurate interface for the user.

16. Mackiewicz modified by the teachings of Huang as applied in claim 4 above, as per claim 19, Huang teaches a computer-readable medium wherein the logic configured to activate a write-in-progress indicator comprises logic configured to activate an indicator adjacent the input/output port (LED indicator adjacent to element 222, figure 2).

Response to Arguments

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17. Applicant's arguments with respect to claims 1, 2, 7 – 14, 18, and 20 – 22 have been considered but are moot in view of the new ground(s) of rejection.

18. As per the applicant's arguments pertaining to the rejection of claim 1 in regards to Mackiewicz's not supporting the newly amended claim limitations, the examiner has provided additional citations with further explanations to elaborate on the current rejection in order for the applicant to better understand Mackiewicz. Mackiewicz provides signals sent from the external storage device to the PC in a LOAD, STORE combination to initiate the write indicator. The "BUSY" signal is a resultant indication based on the external signal as shown above. Applicant is directed to the rejection in claim 1.

Conclusion

19. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aurangzeb Hassan whose telephone number is (571) 272-8625. The examiner can normally be reached on Monday - Friday 9 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Huynh can be reached on (571) 272-4147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AH


KIM HUYNH
SUPERVISORY PATENT EXAMINER
12/21/06